The IPBES Conceptual Framework: An Unhelpful Start

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1 Introduction

1.1 Requirements for frameworks

"A Rosetta Stone for Nature's Benefits to People". This is at once the title of one of two papers describing the "conceptual framework" adopted by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and the bold claim for this framework. Indeed, the IPBES is very focused on the utility of nature to people ("benefits to people") and much of their framework interprets this utility in an even more narrowly econometric way ("ecosystem services" and "sustainable development"). This narrow focus is reflected in the IPBES charter, recited with minor variation in both papers (Díaz et al. 2015a, 1; Díaz et al. 2015b, 3) as: "strengthening the science-policy interface for the conservation and sustainable use of biodiversity and ecosystem services, long-term human well-being and sustainable development."

However at times, the authors seek to dispel the impression of a relatively narrow focus and make statements that suggest an aspiration to something even more bold – an all-encompassing "Rosetta Stone" for the value of nature (not merely its "benefits to people" and "ecosystem services"), the value of a life for all people, and all other ideas about value that its authors have a name for. In short, the IPBES at times appears to aspire to present a quite general framework or theory of value.[1]

The "Rosetta Stone", of course, has come to mean, "a key to some previously undecipherable

[1] It is difficult to take these aspirations seriously because these gestures, towards some ecumenical view of value, are themselves embedded in, and even couched in terms of, a steadfastly utilitarian view. This is discussed later in the main text.

mystery or unattainable understanding".[2] The IPBES framework, in contrast, does much to create mysteries of its own and little to decipher existing ones. To understand why the IPBES effort obfuscates more than it illuminates requires understanding standards that we should expect *any* conceptual framework to meet. These standards minimally include a certain coherence of the concepts and propositions that serve as its framing presuppositions. As well as being coherent, the framing presuppositions should pass tests of non-contradiction, credibility, and adequacy for their framing purpose.

1.2 Normative frameworks

Alongside these minimal *general* standards, we should expect the IPBES framework to meet requirements for the specific *kind* of conceptual framework that it is. For that, we must be clear about what kind of framework it is. One would be mistaken to think that it is a *scientific* framework, even though the scientific credentials of many of its authors might lead one to suppose this. **Rather, the IPBES framework is a *normative* framework because it purports to structure values or norms.** The word "norm" in this context has the *prescriptive* sense, which concerns questions of the ways in which things may be good (or bad) and what this entails for how people ought to act with regard to these things. This prescriptive sense of "norm" has no fixed relationship to the *descriptive* sense in which it means, "what is typical, usual, or standard in actual practice".[3] Actual standard practice or the norms for some society cannot (merely on account of this descriptive fact) be regarded as the key to right behavior. One can readily see this by reference to the standard practice – the norm in many societies over the course of millennia – of holding slaves. This fact did not make holding slaves right.

The IPBES framework is supposed to frame thinking about the goodness of nature and the

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[2] The actual Rosetta Stone is a fragment of a granodiorite stele, now encased in the British Museum. Egyptian priests inscribed the stele in 196 BCE with a decree on behalf of the teenage King Ptolemy V. It features three different language versions of essentially a single text. The juxtaposition of the hieroglyphic version alongside the ancient Greek and demotic suggested a general key for deciphering Egyptian hieroglyphs, knowledge of which evaporated along with its priestly repository when the Roman Emperor Theodosius I ordered the Egyptian temples closed in 394 CE.

[3] Norms in the *descriptive* sense are subject matter in the domains of psychology, sociology, and anthropology. On the other hand, norms in the *prescriptive* sense are the subject matter of central concern in the domain of moral (and more broadly, normative) philosophy. §2 further discusses this crucial point.

rightness of actions to conserve it. As a consequence, it must be assessed for credibility, and adequacy as a *normative*, rather than as a scientific, framework.

The difference between normative (prescriptive) truths and scientific ones is crucial: Finding these very different kinds of truths requires very different kinds of investigation and investigative acumen. Unfortunately, this fact is often overlooked, particularly by scientists who presume that their scientific expertise extends to expertise in questions of good and bad, right and wrong. Although some extraordinary physicists very vocally lobbied for the Manhattan Project, their scientific acumen afforded them no special authority for judging the rightness of developing a weapon that they knew would inflict death and unspeakably horrible injuries to huge numbers of persons in a single deployment. Indeed, their eagerness to pursue the science connected with this project might well have seriously biased their judgment about its rightness. In a similar way, some exceptional ecologists who tease apart the myriad complexities involved in ecosystem processes and properties are very vocal in lobbying for certain ways of assessing the goodness of nature and the rightness of undertaking projects to alter or manage it. But like the physicists who plumped for the Manhattan Project, they have no special authority to do so, and their scientific interests might well bias their normative judgments.

1.3 Goodness, virtue, and right action

A Rosetta Stone for value in general would be an accomplishment at least equal to the contributions of Aristotle, Aquinas, Kant, Mill, and a handful of other formidable thinkers who devoted a great part of their life to understanding goodness, virtue, and right action in some general way. A "Rosetta Stone" for value would place the scientists who form the core of IPBES[4] on the level of these greatest thinkers of all time in the normative domain. Indeed, the authors so highly regard their "Rosetta Stone" that they presume it to be the key to solving problems, not only involving the determination of the goodness of all things, but of how to institute international governance – a problem that for not just centuries but for millennia has defied solution by the world's great thinkers in the field of international institutions and law. For good measure, the authors don't fail to mention (Díaz et al. 2015b, 6) "justice, freedom, and equality".

[4] The four authors who portray the IPBES conceptual framework as a Rosetta Stone for values – Sandra Diaz, Sebsebe Demissew, W. Mark Lonsdale, and Anne Larigauderie – are all biologists.

Now we should take care to allow that lack of formally inculcated expertise in some domain does not preclude arriving at great insights within it. With almost no formal training in pure mathematics, Srinivasa Ramanujan made extraordinary contributions to mathematical analysis, number theory, infinite series, and continued fractions. And Mary Anning, whose formal education did not extend beyond basic reading and writing, made extraordinary contributions to the paleontology of ichthyosaurs, plesiosaurs, and belemnites. The authors of the IPBES framework, in contrast, make one normative misstep after another.

1.4 Sustainable development

The IPBES scientists don the mantel of normative expertise when they identify and pronounce others "expert" in this domain. Most salient among these IPBES-appointed normative "experts" are economists who furnish and promote the view of nature's value as service provider in the human economy – the view that dominates the IPBES framework. This econometric view of nature is strongly reinforced by the choice of the IPBES to coordinate their project with WBCSD (the World Business Council on Sustainable Development), a band of some of the world's largest and most powerful corporations. Taking note of this liaison is important understanding the aims of the IPBES. For one thing, the "Sustainable Development" in the name of he WBCSD lends insight into how we should interpret the IPBES charter (quoted at the start of this paper), which borrows this phrase.

Unsurprisingly, coterie of WBCSD corporations forthrightly declaims the promise of taking nature into account as a capital good like any other – whether or not this treatment preserves or destroys an ecosystem – as a means to greater profits. WBCSD members can endorse this accounting program without reservation, not excepting the substantial contingent that may be reckoned among the planet's preeminent abusers of the environment and human rights. This contingent includes Royal Dutch Shell, BP, Chevron Corporation, Suncor Energy (unremitting purveyors of climate-changing fossil fuels), Syngenta (unremitting purveyor of one of the world's most-used, amphibian-poisoning pesticides), Vale S.A., (the world's 3rd largest mining company on the Forbes 2000 list for 2014 (http://www.forbes.com/global2000/list/), unremittingly focused on extracting resources, despite deleterious effects on land, water, and people), E.I. du Pont de Nemours, Dow Chemical, BASF, and Eastman Chemical (the 1st, 3rd, 5th, and 12th most toxic air-polluting corporations in the U.S. , respectively, based on the most recent data available

from the U.S. E.P.A., as compiled by the Political Economy Research Institute (http://www.peri.umass.edu/toxicair_current/)), and a raft of the world's largest investment and financial corporations eager to profit from financing these other, profitable undertakings.[5] A number of WBCSD members feature on Global Exchange's short list of violators of human rights and destroyers of the environment (http://www.globalexchange.org/corporateHRviolators). On the 2014 list are Bayer (whose neonicotinoid pesticides may be decimating bee populations) and Monsanto (which owns some of the most hazardous toxic sites in the U.S.). Alumni include Bank of America (for bankrolling coal production and burning), Chevron, Coca-Cola, Dow Chemical, the Ford Motor Company, Nestlé, Royal Dutch Shell, Suez Environment, and Syngenta (http://www.globalexchange.org/corporateHRviolators/alums).

Now no person or organization may justifiably be considered morally deficient merely because unwittingly keeping casual company with those who are. However, it is highly morally relevant, especially with regard to their predominant view of nature's value as a capital good that benefits people, that the IPBES fully and freely promote this view and offer it in support of the activities of corporations whose *central goal* is to profit from promoting the use of global-climate-affecting fossil fuels, from extracting the planet's marketable treasures when ecosystems and water sources must be obliterated to do this, or from producing chemicals with as few profit-reducing constraints as possible on toxic effluvia that poison people, among other organisms. It is also highly morally relevant that the concept of "sustainable development", which features prominently in the IPBES charter and conceptual framework, is the "sustainable development" that features in the very name of the World Business Council on Sustainable Development. "Sustainable development" so understood glosses the behavior of many WBCSD members, which is arguably among the planet's most destructive with regard to the environment and human rights. These facts cast serious doubt on IPBES pretensions to promote good environments and good human lives.

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[5] Mention should also be made of Rio Tinto, the world's 2nd largest mining company and the 14th most toxic air-polluting company in the U.S., and a member of the WBCSD's Water Leadership Group (http://www.wbcsd.org/work-program/sector-projects/water/water-leadership-group.aspx). Rio Tinto collaborated with the WBCSD in utilizing the WBCSD's Corporate Ecosystem Valuation (CEV) guidelines (http://www.wbcsd.org/web/ecosystems/RTSummaries/Rio_Tinto_CEV_Summary.pdf), which sanctioned lopping down Malagasy littoral forest because it obstructed cost-effective access to the land's preeminent natural capital – the ilmenite that lay under root.

We now present a few among the many substantive errors, inconsistencies, incoherencies, and other deficiencies that undermine the credibility and adequacy of the IPBES framework as a normative framework. Although we separate these various failings into several categories, they are all closely interrelated because they all stem from a single idea that is inadequate as the basis for normativity.

2 Normative Concepts

2.1 Value

In the normative domain, there is no more basic concept than "value". It is vital to grasp its normative meaning and to grasp of how value, in this normative sense, is not just another variety of value in some descriptive (including economic) sense. Without this basic awareness, little that is normatively credible, let alone relevant, plausible or coherent, can be said.

Many statements in the IPBES framework evidence that this basic understanding eludes its authors. This is a representative statement (MV, 3), which conveys its authors' understanding of "value":

> Value [sic] is a term used to describe human preferences and judgment for ecosystem functions and services. Values, which are multiple and plural, may be formed and elicited within different cultural, social and institutional frameworks - all with the purpose of social and economic knowledge informing policy decisions.

This statement concerns the actual preferences that people in fact happen to hold, and the judgments that they make based on these preferences. It concerns matters of descriptive, empirically verifiable fact about people having certain preferences or desires and about the statements or "judgments" that these persons make to express these desires. This is the sort of fact that psychologists, sociologists, anthropologists, or economists might be able to ascertain and study. However, when we can truly say that some persons have some desire, this fact does not reveal whether the object of this desire is *worthy* of being desired because it is good or has some kind of respect-worthy moral status. **That is, descriptive facts about actual desires have marginal normative importance in ascertaining whether the objects of desires have value in the *normative* sense.**

The truth of this basic normative proposition is easy to see by reference to the many preferences and desires that are idle or capricious, alongside others that are maladaptive, perverse, or even vile – that is, not worthy of satisfaction – sometimes even by the lights of the person whose desires they are. Were we to forget this truth, it would be a great mystery that marketing campaigns don't generally increase the world's goodness by encouraging people to desire more things. The truth of this proposition is also evident from its indispensible role in explaining why we can truly maintain that slavery was *not* good, even though for millennia, it was desired and valued by slaveholders, and furthermore was the norm (in the descriptive sense) for these slave-holding societies. Nor, provided that we keep this truth in mind, need we condone the persecution and execution of many Jews by Nazis, even though these horrendous acts embodied a cultural norm for Nazis who regarded Semites as outside human norms. These examples show that the fact that a culture as a whole embodies some set of values (in the descriptive sense) does not make those values worthy of holding or endorsing. Finally, if things were centrally good merely because persons actually desired or valued them, then these persons couldn't have important reasons to have the desires that they have – other than desiring to have those desires.

2.2 The different meanings of "value"

When the IPBES attempt to categorize values, they correctly observe (Díaz et al. 2015b, 11), "A necessary first step is to distinguish between different uses of the term 'value'." But they are unaware that "what some person desires or values" is a fact about a person's mental state, not a fact about whether (or not) the object of that desire is good or worthy of being valued. These are not merely two different categories of value. Rather, these are two entirely different subjects. Only the latter, normative subject is relevant; it cannot be coherently discussed when conflated with discussion about psychological states. Although the term "intrinsic value" is multiply ambiguous and causes much mischief when these meanings are conflated, all of its meanings relate to value in the central, normative sense. Something with intrinsic value in any of its senses, is something that commands some kind of moral respect, which structures what is permissible, impermissible, and obligatory for people to do with regard to that thing. The fact that Rio Tinto (in the person of its CEO and stockholders) harbored (and satisfied) a desire to lop down Malagasy forest has no such normative force; in fact, many would say that this action was impermissible and deserves condemnation. Nor, most would say, does the desire of Vale S.A. (a WBCSD member) to "sustainably develop" the ferric riches of the Serra do Gandarela with an

open pit mine, when this would intrude on a UNESCO Biosphere Reserve and jeopardize a critical source of water.

The IPBES definition of the category of "relational values" reflects this same confusion and adds another. The authors first correctly observe that "economic values… reflect the extent to which they confer satisfaction" – that is, to the extent to which they satisfy human preferences and desires.[6] They add, "Relational values, on the other hand, are imbedded in desirable (*sought after)* relationships…" [italics added] In this telling statement, the authors insert the parenthetical phrase "sought after" to ensure that the reader interprets the word "desirable", which may sometimes mean "worthy of desire", to in this context mean "what is actually desired". This explanation occurs in the broader context of what these authors take to be "a *good quality of life*". [italics in the original] But it is hard to muster any credible argument for the proposition that a good life centrally consists in satisfying desires, without taking into account what these desires are desires for. The added confusion is that, contrary to what these authors imply with a distinct category of relational desires, *all* desires are relational because they form a relation between a desiring subject and that subject's object of desire. That is, the category of relational is the category of all desires or values actually held, and therefore serves, no categorizing purpose – even for categorizing these psychological states.

2.3 Economic value

This basic confusion is further manifested in the dominant role that the authors give to economic values in the IPBES framework. It is uncertain whether its authors are aware of just how dominant it is. When they mention (Díaz et al. 2015b, 11) existence value, bequest value, and option value, they do not indicate that these are categories of economic value, even though they do not involve the immediate consumption of the valued object.[7] The term "ecosystem services" is ensconced in the organization's very name. Indeed, the authors do not stray outside the narrow economic confines that the econometric term "service" suggests. According to these authors, goods are either "assets" or "services" (see, for example the Glossary in Díaz et al. 2015b, 12-13). An asset, in their economic language is something owned that's expected to provide

[6] Economic values are further discussed just below in the main text.

[7] We offer a few observations about these specific kinds of economic value later in this section.

benefits. By the authors' lights, knowledge is "an anthropogenic asset". When some part of nature is important to the identity of a group of persons, the authors consider its value to consist in offering a "cultural service" (Díaz et al. 2015b, 11).

These econometric characterizations are narrow to the point of being grossly distorting, and (as we shall see shortly), have marginal normative importance. They do not come close to conveying the richness of the good of knowledge or its pursuit. The knowledge that some biologist acquires from dedicated study of slime moulds is good and his pursuit of this knowledge is admirable even if no benefit ever is realized from it. To view this knowledge as "property" is to fundamentally misconceive what makes it and its pursuit good. In a similar way, an icon that is central to practice of a respectable culture may help to solidify the identity and of persons who embrace it, and may help to structure their life in positive ways. To regard this icon as a service-rendering prop is to misconceive the good of a good human identity. The goods of knowledge and positive cultural identity are largely or entirely inaccessible from an econometric standpoint.

The source of these misconstruals is, once again, the result of conflating economic valuations, which often have marginal normative relevance, with normatively important considerations. A thing – either an asset or a service – is economically valuable when some persons, in fact, desire or value it and express this desire by entering into some transaction for it in a real or imaginary market.[8] This transaction reflects their willingness to pay for the thing. Less often observed is that this also reflects their ability to pay for it. **Economic value, by definition, most strongly reflects the desires of the rich.** This fact is cause for moral concern with real-world implications when, for example, the rich are Dow Chemical (the WBCSD member whose pursuit of sustainable development makes it the 3rd largest U.S. air-polluter) and the poor are the impoverished survivors of Bhopal.

More fundamentally concerning is the fact that economic reckoning, *by design*, takes no account whatever of *why* any person, whether rich or poor, desires a thing. In other words, economic valuations, when interpreted normatively as do the IPBES, formalize the fundamental normative error of conflating actual desires with desires that are worthy of satisfaction. That this *is* an error

[8] Economists are not reluctant to invent and imagine markets for the purpose of economic valuation when none actually exist – through such constructs as contingent evaluation, hedonic pricing, and "shadow" pricing.

is again easy to see. In Nazi Germany, Hermann Göring sponsored and promoted the Heck brothers' project of recreating some semblance of the extinct Auroch. He saw this creature as a symbol of mythic cultural identity embodied in the *Nibelungenlied* (Wang 2012) [9]. While we may say without qualification that these Heck cattle offered a cultural service, few would say that this back-bred-into-existence creature, the breeding program that created it, or the identity that it sought to embody were good. Of course no one believes that the authors of the IPBES framework are Nazis. However, neither should anyone believe that the IPBES have a respectable framework for their project when we see that it shares essential elements of its justification with morally repugnant Nazi projects.

It is important to observe that existence value and option value are no different from other categories of economic value in their normative unimportance. The existence value of some thing manifests the psychological fact that some persons may desire or value that that thing come to exist or continue to exist. Of such a desire, like any other, we can and should ask, is this desire one that we have reason to think worthy of satisfaction? Many would question the worthiness of desires behind the existence value of surrogate aurochs in Białowieża or of open pit mines in Serra do Gandarela.

Many who appeal to the option value of some thing understand "option value" informally, as the mere possibility that this thing might somehow, sometime, be handy to have in the future. Unfortunately, option value, so understood, appears to exclude nothing. Essentially everything qualifies, including the world's rubbish. Those who routinely act on the principle that some thing with option value, so understood, should be set aside are said to suffer from hoarding disorder. On the other hand, neoclassical economics much more stringently defines option value as the premium – over and above the expected net benefit, which benefit is (again) over and above the thing's cost – that people are (as a matter of psychological fact) willing to pay, up front, merely to retain the option of consuming it sometime later rather than immediately. It is doubtful that nature or even any part of nature passes this test and the authors of the IPBES say nothing to dispel this doubt. Indeed, they evidence no awareness of the need to do so.

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[9] Part of this restoration project involved evicting non-Aryans from Białowieża, the Polish wood that Göring envisaged as the proper home of the surrogate Aurochs. According to Wang (2012), "The Polish biologist Tadeusz Vetulani described this dual program – of human extermination and animal propagation – as the German 'management' of Białowieża."

2.4 Stakeholders

The authors of the IPBES framework liberally sprinkle the term "stakeholder" throughout their discussion (Díaz et al. 2015a, 1, 2, 3, 5; Díaz et al. 2015b, 1, 3, 4, 5, 6, 10, 11, 12) and repeatedly assert their desire to include as many as possible. To understand the normative relevance of this policy requires understanding that a stakeholder in the IPBES is simply some party that, as a matter of psychological fact, has an interest in what the IPBES say and do.

Unfortunately, the IPBES do not evidence awareness of the fact that the inclusion of stakeholders leaves open the crucial *normative* question of which parties have stakes, interests, or desires that are *worthy* of inclusion. This unawareness is another way in which the framework authors conflate actual desires – in this case, the actual desires held by stakeholders – with desires worthy of being satisfied.

This error does not have merely theoretical interest to moral philosophers. The most powerful stakeholders – for example, the WBCSD, which amalgamates wealth and power of the individually wealthiest and most powerful parties in the world – may well have stakes of questionable worth. In the absence of a credible normative theory, the questionable worthiness of these interests does not diminish the degree to which these interests may be represented in IPBES proceedings. On the contrary, these interests are likely to be represented in proportion to the wealth and power of the parties whose interests they are – that is, overwhelming most others. We need only examine the environmental record and the record on human rights of these corporations, which routinely tread with impunity on the environment and relatively powerless people.

2.5 Western Science versus "Indigenous and Local Knowledge"

The IPBES framework juxtaposes (Díaz et al. 2015b, 4) "what [they]… call western science on the one hand and other knowledge systems, in particular indigenous and local knowledge (ILK), on the other." The normatively important part of this juxtaposition yet again conflates description with prescription.

"Western science" is concerned to discover facts about things in the spatio-temporal world, as well as their descriptive, non-normative properties and relationships. These are *not* facts about

the goodness of certain things, why those things matter, and what we ought to do in a world where these things matter in the ways that they do. In contrast, some part of the "indigenous and local knowledge" to which the IPBES authors refer, consists of a body of beliefs about why certain things do matter and what that entails for how people ought to behave with respect to these things.

It is a category mistake to think that one can usefully or even coherently compare, let alone reconcile, some scientific fact, for example, about how wolves regulate the population of elk in some ecosystem with some normative claim about whether or not some proportion of wolves to elk is good. **This is why it literally makes no sense to propose (Díaz et al. 2015b, 10) to leverage Multiple Evidence Based techniques to address differences between western scientific knowledge and the normative views of others.** In a similar way, IPBES framework's multiple statements about finding "commonalities" and "common ground" (Díaz et al. 2015a, 1, 4, 5; Díaz et al. 2015b, 4, 7, 8) in values make no more (nor less) sense than finding the commonalities between helping a friend in need and the color of that friend's hair.

2.6 Economic measures

Substituting "economic fact" for "scientific fact" – as the IPBES authors frequently do by reference to "benefits to people" as evaluated and indexed by neoclassical or happiness economics (Díaz et al. 2015b, 7) – repeats, rather than corrects, the error that yields this incoherence. Among the indexes they mention, the GDP summarizes facts about the market transactions that people have, in fact, entered into in pursuit of satisfying their desires. And happiness indexes summarize other psychological facts about how people report a certain aspect of their psychological state. Of course, no one has a credible theory of what happiness is, let along whether it is something that can be measured or compared between persons. There is no plausible account of what to make of the fact that two persons in essentially identical circumstances might register significantly different happiness scores. Apparently, some people are simply more efficient happiness transducers than others. But this fact teaches us nothing about what is good. Meanwhile, Bhutan has leveraged its happiness index to try to dispel questions regarding policies that others find questionable on substantive normative grounds.

It is particularly easy to illustrate the extent to which a measure of economic value such as the

GDP is indifferent to the good of nature, with its biodiversity.[10] **Attempts to clear the 119 million tonnes of crude oil spilled in 1967 in the wreck of the Torrey Canyon may have raised the UK's GDP.** This economic boon was due, in part, from the production and application of dispersants and detergents, which greatly increased the scope of the pollution. This boost in economic value had no commensurate *economic* cost to nature or its biodiversity, though it killed some 15,000 birds, many seals, and countless unrecorded other creatures and organisms. The economic cost – to fishers, tourist-oriented businesses, and the like – was relatively small. And the economic cost that some economists like to compute from imaginary markets – in foul smells and displeasing sights – was essentially invisible next to the economic boon. The case of the Torrey Canyon is not exceptional. According to J.P. Morgan Chase's U.S. chief economist in 2010 (di Leo, 2010), "The [BP Gulf oil] spill clearly implies a lot of economic hardship in some locations, but given what we know today, the magnitude of these setbacks looks dwarfed by the scale of the US macroeconomy." Estimates of 4,000 unemployed people hired for the cleanup efforts, which some reports have said could be worth between $3 and $6 billion "would likely mean a near-to medium-term boost to activity that might offset the drags." More recently, Kinder Morgan's report to the Canadian National Energy Board on their proposed Trans Mountain Project pipeline candidly stated (Kinder Morgan, 2014), "Pipeline spills can have both positive and negative effects on local and regional economies, both in the short- and long-ter… Spill response and cleanup creates business and employment opportunities for affected communities, regions, and cleanup service providers."

The case of the Torrey Canyon and other, similar ones illustrate something quite general and quite important about how economic values may not reflect what really matters. One more example may help to bring home this point. Sometime around 2000, Philip Morris commissioned Arthur D. Little International to do a cost-benefit analysis of smoking on the Czech national finances. Released late in 2000, the report's

> … principal finding is that the negative financial effects of smoking (such as

[10] We realize that some number of economists have also expressed discomfort with the GDP on the grounds that it does not adequately represent human welfare. However, for two reasons, this does not affect the points we make about the GDP: 1) It is the most straightforward embodiment of economic value; and 2) substitutes for GDP, including for example, happiness indexes, are equally deficient and for similar reasons.

> increased health care costs) are more than offset by positive effects (such as excise tax and VAT collected on tobacco products). This conclusion would hold even if the indirect positive effects of smoking were neglected… Among the positive effects, excise tax, VAT and *health care cost savings due to early mortality* are the most important. [italics added] (Arthur D. Little International, 2000, 1-2)

That cigarettes kill people may be an economic good. This should make it less surprising that oil spills, too, may boost the economy. Most importantly, these facts about economic values should make it clear that "good economically" should not be taken to mean "good" in any central normative sense.

2.7 Value conflicts

The authors barely acknowledge the possibility of value conflict; the word "conflict" appears but once in the two papers (Díaz et al. 2015b, 12), and only in passing. The credibility of a normative framework barely acknowledges the fact that norms may conflict may be called into serious question on this account.

It is important to see how this deficiency stems from a common root with others already discussed. The mistaken belief that economic valuations – measures of market-based desires and preferences – are normatively important straightforwardly suggests the corollary belief that all held values – even those that appear to conflict – are ultimately subject to market arbitration. The market can determine how to most efficiently allocate resources so as to realize a Pareto resolution of economic benefits to economic costs for all. **This market magic appears to make conflicts disappear by weighing all goods and bads on a single scale, which can tell us whether or not they add up to the greatest good for all.** Except, this scale necessarily includes many economic goods that are of questionable normative relevance, while omitting what may be the normatively most important values of all, as the previous section suggests.

Not content with this magic, the authors make brief reference to another, more recent form of magic – Multiple Evidence Based Techniques (MEB). But no magic can resolve conflicts between the *normative* beliefs of those who are not scientists with the *non*-normative beliefs of western

scientists – because these beliefs concern facts in different domains.[11] This methodology also relies on the mistaken notion, discussed above, that normatively correct, or at least more credible, decisions may be reached by including more stakeholders. But it is mistaken to believe that any decision is normatively correct by virtue of the methodology employed in reaching it. No matter the decision process, we may always ask of the decision it reaches, "Is it right?"

Neither economics, nor markets, nor the latest fads in decision procedures provide a "Rosetta Stone" for values, understood in the central normative sense.

2.8 Success

The IBPES framework repeatedly refers to "solutions" (Díaz et al. 2015a, 1, 2, 5, 6; Díaz et al. 2015b, 11, 12) to "problems" (Díaz et al. 2015a, 2, 5, 6); Díaz et al. 2015b, 9, 10, 12). **Unfortunately, its authors neglect to characterize what problems these "solutions" are solutions for.** This neglect points to another normative deficiency. No circumstance can be understood as a "problem" and no action can be understood as a "solution" without reference to some (non-descriptive) norm that distinguishes problematic states of affairs from non-problematic ones, and some other, though related, norm for what "success" (Díaz et al. 2015a, 5) in addressing it would consist in. The IPBES conceptual framework does not provide any clue for what those norms might be, let alone how any such norms might be justified, or how norms for conflicting views of success might be reconciled.

2.9 A Good Life

The phrase "a good life" appears a half-dozen times in Díaz et al. 2015b. From this fact one might surmise that the authors of the IPBES conceptual framework incorporate into their framework some well-considered theory of what constitutes a good human life. Some very great thinkers have pondered this question; they have sought to elaborate some theory that provides a plausible answer. Aristotle thought that living well has to do with excellence in exercising the rational soul

[11] Making this point simply requires glossing over the fact that a normative fact may supervene on non-normative ones: The normative fact that I really ought to quickly turn my car's steering wheel may supervene on the non-normative fact that a child has dashed into my path. But the complexities of this supervenience relationship does not undermine the simple fact that my obligation to swerve is not contained in mere descriptions of the physics and biology of the situation.

in accordance with the virtues. Kant thought that living well has to do with living in accord with the moral law, which we can rationally legislate for ourselves.

Frequent appearances of the phrase "a good life" notwithstanding, the IPBES framers offer no comparable, or even minimally credible theory of "the good life". Instead, the framework routinely slides from the phrase "a good life", to the italicized phrase "*a good quality of life*" or "human well-being". In a few passages, the authors gesture towards some suitably broader understanding of what a "good quality of life" consists in. At one point, they mention (but only mention) the ideals of "justice, freedom, and equality" (Díaz et al. 2015b, 6). And they acknowledge the importance of certain basic requirements of human existence, such as water; as well as other requirements for exercising important human capacities (Díaz et al. 2015b, 6).

Whatever faint ray of hope that these isolated thoughts might be developed and incorporated into a more credible framework is quickly quashed. Immediately after their mention, the authors reiterate their view that these and other aspects of *a good quality of life* are the kind of goods – benefits to people – that may be measured by the GDP, the wealth index, and happiness indexes. In other words, the framework presents no conception of the good that departs from the economic good of possessing and benefiting from assets and services or from self-reporting about being happy about them.

The extent to which the framework revolves around this untenable normative view is difficult to exaggerate but plain to see from how thoroughly econometric language suffuses the framework. **The word "service" is baked into the name of the organization.** Some thing that is culturally important renders a cultural *service* and, of course, ecosystems are valuable for *services* rendered in the human economy. Knowledge is an *asset*, a characterization that suits any benefit-rendering possession. Of course, knowledge is an *anthropogenic* asset, in contrast to nature, which supplies *non*-anthropogenic assets and services.

The title of Díaz et al. 2015a indicates that the IPBES conceptual framework is a Rosetta Stone, not for nature's value, but rather for "natures benefits to people". In Díaz et al. 2015b (9), the IPBES framework authors forthrightly indicate that they do not address normatively relevant facts (which they call "linkages") "when they by-pass *nature's benefits to people*." [italics in the original] Unsurprisingly, this statement appears in a section that bears the title "Values and

valuation of nature *and its benefits to people*" [italics added], lest we forget the authors' main focus. All told, the phrase "benefits to people" occurs almost three dozen times between Díaz et al. 2015a and Díaz et al. 2015b. Now some sophisticated thinkers, such as Jeremy Bentham, John Stuart Mill, and Peter Singer, have defended the utilitarian view that normative value is saliently determined by counting benefits and weighing costs. But it is doubtful that any of them would defend the view that these benefits and costs correspond to market-expressed satisfaction of desires, which preoccupies the economics of assets and services.

The authors declare (Díaz et al. 2015b, 4), "every effort was made during the development of the Díaz et al. 2015b to represent… alternative views." **It is difficult to take this declaration seriously, when their starting point and constant frame of reference is the normative view that nothing is good that does not benefit people in the narrow and normatively questionable sense that economic indexes measure.**

3 Biodiversity, Ecosystem Services, and the Goodness of Nature

We are discussing the conceptual framework for the Intergovernmental Panel on *Biodiversity* and *Ecosystem Services*. It is therefore important to step back and say a few things about both biodiversity and ecosystem services, and particularly about how these things relate to what we imagine really matters to many, if not almost all, biologists.

What really matters to these scientists? What motivates them to endure their demanding training and arduous work – often involving extremely difficult conditions in the field and endless tedium in the lab? Why do they do all this for modest compensation? How do their answers relate to biodiversity and ecosystem services?

We will address these questions shortly – but only after making a few relevant observations about what the IPBES scientists say about biodiversity. **In truth, most revealing is what they don't say.** One might suppose that having a conceptual framework that substantively addresses the goodness of biodiversity would require some elaboration of what this thing is, which is supposed to be good. For how else could we possibly understand how and why it is good? Instead, we find nothing on this score in Díaz et al. 2015a, and sequestered away in the glossary of Díaz et al. 2015b, only the standard, perfunctory, Convention on Biological Diversity (CBD) definition in the glossary: "The variability among living organisms…" But the view that

variability is the key to biodiversity's goodness is not at all plausible. It invites such wise-guy suggestions as ones to increase world's biological goodness by setting genetic engineers to work and by disturbing as many habitats as possible to jump-start adaptive evolutionary processes.

The absence of serious attention to the normatively crucial step of characterizing biodiversity seems mysterious until one notices a similar absence in the literature of the WBCSD. The WBCSD's key documents on biodiversity – "Effective Biodiversity and Ecosystem Policy and Regulation" and " Guide to Corporate Ecosystem Evaluation" – offer the same, inadequate account of biodiversity. These documents refer the reader to those of the Business and Biodiversity Offsets Programme (BBOP), principally their "Biodiversity Offset Cost-Benefit Handbook". The definition of "biodiversity in that last document is only to be found in a separate, "Glossary" document. It recites the same, perfunctory, and inadequate CBD definition found in the IPBES conceptual framework. Yet some progress towards a more perceptive understanding of biodiversity has been made whereby it is viewed as a quality relating to a taxonomic unit (or gene pool or ecosystem) described by a number of characteristics that can be measured (as for example, described by Feest et al. 2010).

The key to the mysterious absence of some sound basis for understanding biodiversity (either descriptively or normatively) is that, for the purposes of the WBCSD and BBOP, none is needed. The documents just mentioned discuss "sustainable development" in which biodiversity is discussed almost entirely by way of describing the practice and methodology of "biodiversity offsets". The good of nature or biodiversity does not enter into this discussion, as one may see by reference to the BBOP's "Biodiversity Offset Cost-Benefit Handbook" and the WBSCD's "Guide to Corporate Ecosystem Valuation". The main focus of the methodology is how best to convince locals to accept compensation for whatever these people regard as lost as a consequence of environmentally destructive development projects. This, then, is the core of "sustainable development". Because the IPBES framework relies on similar principles, which are substantively also those of the WBSCD and BBOP, it similarly has no need for trying to figure out why biodiversity really matters.

Let us now get back to our questions for biologists. In our experience, when it comes to biodiversity, it is difficult to find any biologist who responds to those questions along these lines:

> I'm in this to make sure that when Rio Tinto lops down a Malagasy forest, they follow WBCSD and BBOP guidelines for biodiversity offsets. This, you know, is sustainable development, which is central to properly valuing nature and biodiversity. I cannot think of anything more worthwhile for a biologist to dedicate her career to.

Yet this is the response that one should expect from someone who honestly endorses the IPBES conceptual framework.

Rather, the biologist's answer tends to be more along these very different lines:

> I am utterly and unalterably fascinated by slime moulds (or frogs, or trees, or whales, or…). It is truly difficult for me to imagine any undertaking that would be more fulfilling or give my life greater meaning, than devoting it to an effort to better understand these organisms' way of life. In the end, I think that this might help us humans better understand ourselves as human and as related to other creatures and organisms in our world.

As for ecosystem services, we have found few biologists who, in moments of candor, reflect the precepts of the IPBES framework by saying:

> You know, I really think that we should make sure that all organisms do the jobs that we depend on them to do. All of them should be expected to pull their own weight in the economy. The great joy and value of biology, for me, is arranging ecosystems for the efficient economic performance of their inhabitants. Of course, the fate of organisms that contribute little, nothing, or just get in the way of economic development should not preoccupy us. The same goes for ecosystems, which despite our best efforts to rearrange and manage them for efficient rendering of services, fail the economic test. Better for all that we develop them into something more economically valuable.

Those, who like the IPBES framework authors and the members of the WBCSD and BBOP, sincerely espouse the view that nature's value is centrally due to services rendered, commit themselves to this view of their work. The corporate parties evidence full awareness of this. We

are uncertain that scientists have a similar awareness.

4 Conclusion

Our conclusion regarding the IPBES conceptual framework is cause for alarm at the orientation it establishes for the IPBES. Conserving nature and its biodiversity involves understanding what is good about these things. Without this understanding, we cannot hope to know how to act so as to ensure a place for these good things in our world.

One cannot ensure a place for the civic good of freely casting votes without understanding that this good very essentially relates to the good of citizens jointly determining their shared destiny in the world. To realize this good, one must understand that, while a market in votes would be an economic boon and would efficiently get votes to those who most value, and can pay for, them, this economic regime would not properly value voting. To the contrary, it would corrupt civic virtues and values central to self-governance.

In a similar way, for all the reasons we have offered in this paper alongside others offered elsewhere[12], it is highly doubtful that an econometric understanding of nature and biodiversity, which suffuses the IPBES conceptual framework, properly captures the goodness of these things. **Alarm enters when one realizes that acting on this terribly mistaken conception of what really matters about them already has, and will likely continue, to wreak havoc on nature and biodiversity, insofar as these things really do matter.**

In their conceptual framework, the IPBES reveal that they understand "biodiversity" centrally in the econometric terms of the WBCSD and BBOP. Dominating their economic evaluation of biodiversity is the notion of a biodiversity offset, a centerpiece in their conception of "sustainable development". **A biodiversity offset, in turn, is principally understood (BBOP, 2010) in terms of the world's wealthiest and most powerful corporations offering compensation to "stakeholders" who are typically among the worlds' poorest and powerless, for the costs that they incur as a result of poisoning or ripping apart the place where they live. This is a recipe for environmental devastation.**

For all these reasons, we urge the IPBES to back away from its false start and to withdraw their

[12] See, for example, Maier, 2012 – particularly §6.3 and Chapter 8.

imprimatur from a program that is, in substance, borrowed from the WBCSD. We urge that IPBES start afresh by redoubling their effort to understand what really matters about nature and biodiversity. We realize how difficult this may be. However, by staying in touch with the reasons that made them devote their life to biology, they may this time find something that rings true.

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